

CLAIMS

1. An image processing device comprising:

process generation means for generating processes for performing image processing that handles image data and sequentially outputting process data containing instructions required to execute each of the processes;

a plurality of series-connected execution means each of which executes a process related to the process data, wherein the process data contains an address of the execution means for executing the process related to the process data; and

for each suite of a predetermined number of the consecutive execution means, route selection means for selecting any one of the input side and an output side of each of the suites to supply the input process data, the route selection means being inserted to an input side of each of suites;

wherein the route selection means comprises:

first address storage means for storing an address of each of the execution means that make up the immediately following suite;

first address decision means for outputs a decision signal that indicates a state if at least one of addresses stored in the first address storage means is present among the addresses of the execution means that are contained in the input process data; and

first switching means for supplying, depending on the decision signal output from the first address decision means, the input process data to the input side of the immediately following one of the suites if the decision signal indicates the state and,

otherwise, to the output side of this immediately following one of the suites.

2. The image processing device according to claim 1, wherein each
5 of the plurality of execution means comprises:

processing means for performing processing of image data in
accordance with each of the instructions contained in the input process
data, altering the input process data to obtain process data to be output
based on a result of the processing, and outputting a request signal that
10 becomes a state when the process data to be output is output;

second address storage means for storing an address of itself;

second address decision means for outputting a decision signal
that indicates a state if the address of itself stored in the second address
storage means is present among the addresses of the execution means
15 contained in the input process data; and

second switching means for outputting, depending on the decision
signal output from the second address decision means and the request signal
output from the processing means, the process data to be output obtained
by the processing means as output process data if the request signal is
20 the state and the input process data as the output process data if the
request signal is not the state and the decision signal is not the state.

3. The image processing device according to claim 2, wherein each
of the plurality of execution means further comprises data storage means
25 for storing image data; and

wherein the processing means performs as the image data processing
any one of writing of image data to the data storage means, reading of the
image data from the data storage means, and calculation of a difference
on the image data.

4. The image processing device according to claim 2, wherein the second switching means outputs any one of high-level data and low-level data if the request signal is not the state and the decision signal is the state.

5. The image processing device according to claim 1, wherein the image processing includes detection of a motion vector.

10 6. An image processing device comprising:
process generation means for generating processes for performing image processing that handles image data and sequentially outputting process data containing instructions required to execute each of the processes; and

15 a plurality of series-connected execution means each of which executes a process related to the process data wherein the process data contains an address of the execution means for executing the process related to the process data,

wherein each of the plurality of execution means comprises:

20 processing means for performing processing of image data in accordance with the instructions contained in the input process data, altering the input process data to obtain process data to be output based on a result of the processing, and outputting a request signal that indicates a state when the process data to be output is output;

address storage means for storing an address of itself;

address decision means for outputting a decision signal that indicates a state if the address of itself stored in the

address storage means is present among the addresses of the execution means contained in the input process data; and

switching means for outputting, depending on the decision signal output from the address decision means and the request signal output from the processing means, the process data to be output obtained by the processing means as output process data if the request signal is the state, and the input process data as the output process data if the request signal is not the state and the decision signal is not the state.

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7. The image processing device according to claim 6,

wherein each of the plurality of execution means further comprises data storage means for storing image data; and

wherein the processing means performs as the image data processing any one of writing of image data to the data storage means, reading of the image data from the data storage means, and calculation of a difference on the image data.

8. The image processing device according to claim 6, wherein the switching means outputs any one of high-level data and low-level data if the request signal is not the state and the decision signal is the state.

9. The image processing device according to claim 6, wherein the image processing includes detection of a motion vector.